

We Claim:

1. A method for a wireless terminal performing a handover from a first cell to another cell in a wireless system, comprising:

(A) receiving a first channel burst from a first base station on a wireless channel, wherein the first base station serves the first cell and wherein the first channel burst supports a data service;

(B) determining whether a serving signal quality associated with the first cell satisfies a handover criterion;

(C) in response to (B), obtaining measurements associated with a list of candidate cells, wherein the list comprises at least one candidate cell and wherein each measurement gauges a corresponding signal quality that is provided by a corresponding candidate cell;

(D) if a selected signal quality is acceptable, deciding to perform the handover to a selected candidate cell, wherein the selected candidate cell is a member of the list and wherein the selected signal quality corresponds to the selected candidate cell;

(E) after performing (D), receiving a final channel burst from the first base station; and

(F) in response to (E), performing the handover to the selected candidate cell and receiving a new channel burst from a selected candidate base station, wherein the selected candidate base station is serving the selected candidate cell.

2. The method of claim 1, wherein (C) comprises:

(i) if the wireless terminal cannot complete obtaining the measurements before receiving the final channel burst from the first base station, suspending obtaining the measurements;

(ii) receiving another channel burst from the first base station; and

(iii) in response to (ii), resuming obtaining the measurements.

3. The method of claim 1, wherein the serving signal quality is determined from the first channel burst.

4. The method of claim 1, wherein the serving signal quality is selected from a group of indicators consisting of a received signal strength indicator (RSSI) value, a bit error rate (BER), a packet error rate (PER), and a frame error rate (FER).

5. The method of claim 1, wherein (D) comprises:

(i) adjusting the selected signal quality by a hysteresis value.

6. The method of claim 1, further comprising:

(G) determining the list of candidate cells.

7. The method of claim 6, wherein (G) comprises:

(i) receiving handover information from the first base station, wherein the handover information comprises candidate information indicative of the list of candidate cells.

8. The method of claim 1, further comprising:

(G) determining a phase shift offset that is associated with the selected candidate cell.

9. The method of claim 8, wherein (G) comprises:

(i) receiving handover information from the first base station, wherein the handover information comprises the phase shift offset that is associated with the selected candidate cell.

10. The method of claim 8, further comprising:

(H) in response to (E), suspending reception on the wireless channel until performing (F).

11. The method of claim 10, wherein (H) comprises:

(i) reducing power consumption of the wireless terminal.

12. The method of claim 1, further comprising:

(G) if a candidate signal quality is not acceptable, removing the associated candidate from the list of candidate cells.

13. The method of claim 1, wherein (F) comprises:

(i) receiving the new channel burst associated with a different frequency.

14. The method of claim 1, wherein (F) comprises:
 - (i) receiving the new channel burst associated with a different channelization code.
15. A computer-readable medium having computer-executable instructions for performing the method recited in claim 1.
16. A computer-readable medium having computer-executable instructions for performing the steps recited in claim 10.
17. The method of claim 1, wherein the wireless system serves a digital broadband broadcasting area and the data service is associated with a digital broadband broadcasting service.
18. The method of claim 1, wherein a phase shift offset associated with the selected base station is not provided by the wireless system.
19. The method of claim 1, further comprising:
 - (G) in response to (E), determining that the serving signal quality is not indicative of a handover; and
 - (H) in response to (G), canceling the handover to the selected candidate cell.

20. A wireless terminal that receives a plurality of data packets from a wireless system, the wireless system comprising a first base station and a second base station, comprising:

a storage buffer;

a timing module;

a radio module that communicates with the wireless system over a radio channel;

a processor that receives an indication from the timing module that a current first channel burst is being transmitted, wherein the current first channel burst contains a first group of data packets, and that stores the first group of data packets into the storage buffer, the processor configured to perform:

(A) receiving a first channel burst from a first base station on a wireless channel, wherein the first base station serves the first cell and wherein the first channel burst supports a data service;

(B) determining whether a serving signal quality associated with the first cell satisfies a handover criterion;

(C) obtaining measurements associated with a list of candidate cells, wherein the list comprises at least one candidate cell and wherein each measurement gauges a corresponding signal quality that is provided by a corresponding candidate cell;

(D) if a selected signal quality is acceptable, deciding to perform the handover to a selected candidate cell, wherein the selected candidate cell is a member of the list and wherein the selected signal quality corresponds to the selected candidate cell;

(E) after performing (D), receiving a final channel burst from the first base station; and

(F) in response to (E), performing the handover to the selected candidate cell and receiving a new channel burst from a selected candidate base station, wherein the selected candidate base station is serving the selected candidate cell.

21. The wireless terminal of claim 20, wherein the processor is configured to perform:

(G) adjusting the selected signal quality by a hysteresis value.

22. The wireless terminal of claim 20, wherein the processor is configured to perform:

(G) determining a phase shift offset that is associated with the selected candidate cell.

23. The wireless terminal of claim 20, wherein the processor is configured to perform:

(G) determining a phase shift offset that is associated with the selected candidate cell;

(H) in response to (E), suspending reception on the wireless channel until performing (F); and

(I) in response to (H), reducing power consumption of the wireless terminal.

24. The wireless terminal of claim 20, wherein the processor is configured to perform:

(G) if a candidate signal quality is not acceptable, removing the associated candidate from the candidate list.

25. A wireless terminal that receives a plurality of data packets from a wireless system, the wireless system comprising a first base station and a plurality of candidate base stations, the base stations serving corresponding cells, the wireless terminal comprising:

- a communications module that receives a plurality of channel bursts from the first base station before a handover and a new channel burst from a selected base station and that controllably tunes to one of the plurality of candidate base stations, wherein the plurality of channel bursts and the new channel burst support a data service on a wireless channel;

- a measurement module that obtains signal quality information from the communications module, the signal quality information being indicative of the first base station and a selected base station, the selected base station being a member of the plurality of base stations; and

- a handover analysis module:

- that instructs the communications module to tune to said one of the plurality of base stations and instructs the measurement module to obtain corresponding signal quality information corresponding to said one of the plurality of base stations;

- that processes the signal quality information to determine whether the handover to the selected candidate base station is necessary;

- that instructs the communications module to receive a last channel burst from the first base station after the handover analysis module determines to perform the handover; and

- that instructs the communications module to tune to the selected candidate base station and to receive the new channel burst from the selected candidate base station.

26. The wireless terminal of claim 25, further comprising:

- a power control module that reduces electrical power to the communications module if provided an instruction by the handover analysis module, wherein the handover analysis module generates the instruction between a time interval between the last channel burst and the new channel burst, and wherein the communications module suspends reception on the wireless channel.

27. A method for a wireless terminal performing a handover from a first cell to another cell in a wireless broadcast system, comprising:

(A) receiving a first channel burst from a first base station on a wireless channel, wherein the first base station serves the first cell and wherein the first channel burst supports a multicast service;

(B) determining a list of candidate cells, wherein the list comprises at least one candidate cell;

(C) determining whether a serving signal quality associated with the first cell satisfies a handover criterion;

(D) obtaining measurements associated with the list of candidate cells, wherein each measurement gauges a corresponding signal quality that is provided by a corresponding candidate cell;

(E) adjusting a selected signal quality by a hysteresis value;

(F) if a candidate signal quality is not acceptable, removing an associated candidate from the candidate list;

(G) if the selected signal quality is acceptable, deciding to perform the handover to a selected candidate cell, wherein the selected candidate cell is a member of the list and wherein the selected signal quality corresponds to the selected candidate cell;

(H) after performing (G), receiving a final channel burst from the first base station; and

(I) in response to (H), performing the handover to the selected candidate cell and receiving a new channel burst from a selected candidate base station, wherein the selected candidate base station is serving the selected candidate cell and wherein the new channel burst supports the multicast service.